PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT
(PCT Rule 72.2)

To:

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Date of mailing *(day/month/year)* 26 May 2005 (26.05.2005)	
Applicant's or agent's file reference 2002 - 0902 P	**IMPORTANT NOTIFICATION**
International application No. PCT/EP2003/010045	International filing date *(day/month/year)* 10 September 2003 (10.09.2003)
Applicant OCE PRINTING SYSTEMS GMBH et al	

1. **Transmittal of the translation to the applicant.**

   The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

2. **Transmittal of the copy of the translation to the elected Offices.**

   The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

   None

   The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

   EP, JP, US

3. **Reminder regarding translation into (one of) the official language(s) of the elected Office(s).**

   The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

   It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Agnes Wittmann-Regis
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Translation

PCT/EP2003/010045

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2002 - 0902 P	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/EP2003/010045	International filing date (*day/month/year*) 10 September 2003 (10.09.2003)	Priority date (*day/month/year*) 19 September 2002 (19.09.2002)
International Patent Classification (IPC) or national classification and IPC H04N 1/60		
Applicant OCE PRINTING SYSTEMS GMBH		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 8 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

   a. ☒ *(sent to the applicant and to the International Bureau)* a total of 2 sheets, as follows:

      ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

      ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

   b. ☐ *(sent to the International Bureau only)* a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

- ☒ Box No. I Basis of the report
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
19 April 2004 (19.04.2004)	02 March 2005 (02.03.2005)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2003/010045

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language _____, which is language of a translation furnished for the purpose of:

☐ international search (under Rules 12.3 and 23.1(b))

☐ publication of the international application (under Rule 12.4)

☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

☐ The international application as originally filed/furnished

☒ the description:

pages 1-8, as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

☒ the claims:

pages _____, as originally filed/furnished

pages* _____, as amended (together with any statement) under Article 19

pages* 1-10 received by this Authority on 28 December 2004 (28.12.2004)

pages* _____ received by this Authority on _____

☒ the drawings:

pages 1-5, as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing *(specify)*: _____

☐ any table(s) related to sequence listing *(specify)*: _____

4. ☒ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing *(specify)*: _____

☐ any table(s) related to sequence listing *(specify)*: _____

* *If item 4 applies, some or all of those sheets may be marked "superseded."*

I. Basis of the report

1. This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

1. The amendment in claim 1 involving the addition of the phrase "and of a peripheral region of the reproducible colour space that is adjacent to said non-reproducible colour space" is in violation of PCT Rule 34.2(b) and has therefore been ignored for the purposes of the statement in Box V of this report (PCT Rule 70.2(c)).

2. The inadmissible amendment relates to the colour adjustment process. The original application describes three features that characterise the colour adjustment process, and also a general commentary on the prior art relating to such adjustment processes. The features and commentary are as follows:

2.1 The adjustment process can be a compression process which is only required in the blue region (page 6, lines 12 to 17, and figure 4). The mention of the blue region is regarded as an example which, with reference to the technical context, is understood to limit the adjustment process to regions that have the shape of a sector or "slice of cake" in a representation in which hue is labelled around the circumference. Thus in a general sense the adjustment process can be a compression process which is only necessary in certain sectors.

2.2 The adjustment process "adjusts the non-reproducible colour gamut optimally to suit the reproduction device, as described above" (page 7, lines 3 to 6).

2.3 Figure 4 is a schematic diagram illustrating the adjustment process.

2.4 The passage from page 2, line 12 to page 4, line 5 and figure 2 give an outline of the prior art relating to

I. Basis of the report

1. This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

colour adjustment processes with particular emphasis on processes which involve "soft clipping" (i.e. those which also modify peripheral regions of the reproducible colour space).

3.1 The features cited in points 2.1 and 2.2 above give no indication whether the colour adjustment process is also supposed to modify the peripheral region of the reproducible colour gamut. The restriction to sector shapes ("blue region") is not a restriction in the radial direction that might relate to peripheral regions. The reference to the "process described above" is taken as a reference to the sector shape, and the use of the word "optimally" cannot be taken as a reference to peripheral regions.

3.2 Figure 4 shows three colour points and arrows explaining the function of the colour adjustment process. However, figure 4 is taken only as a schematic diagram which does not show exactly where the adjustment process is supposed to be applied. Even if the colour point within the reproducible colour space could indicate that this is another point at which colours are modified, it is inadmissible to include a restriction to colours in the peripheral region of the reproducible colour gamut. It would be equally possible to displace all the colour points within the reproducible colour gamut. However, the colour point within could also have "slipped" for reasons relating to the printing process, and colours within would not be adjusted. In any case, on the basis of figure 4 it does not seem possible to infer a restriction to colours in the peripheral region.

3.3 The fact that colour adjustment processes involving soft clipping (i.e. colour adjustment even in the peripheral

I. **Basis of the report**

1. This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

region of the reproducible colour space) are cited as prior art does not imply that precisely such a process would be used as part of the claimed process. Soft clipping is regarded as just one of many different colour adjustment processes, and the choice of the process to be used in order to carry out the claimed adjustment process can only be made on the basis of features which are actually found in the context of the claimed process, namely the features listed in points 2.1 to 2.3 above, which do not indicate the use of a soft clipping process in particular. It is not possible to deduce from the prior art alone that a soft clipping process is being used.

4. To sum up, the original application specifies a small number of very general features of the colour adjustment process which do not allow one to conclude beyond all doubt that a soft clipping process in particular should be used. The indication provided by the cited prior art of the existence of such processes is likewise not enough to allow one to conclude beyond all doubt that such a process should be used. The amendment therefore violates PCT Rule 34.2(b).

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/EP 03/10045

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	5-7, 9	YES
	Claims	1-4, 8, 10	NO
Inventive step (IS)	Claims		YES
	Claims	1-10	NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO

2. Citations and explanations

1. Reference is made to the following documents:

D1: US-A-6 151 136 (TAKEMOTO FUMITO), 21 November 2000 (2000-11-21)

D2: US-A-5 987 165 (HIBI YOSHIHARU et al.), 16 November 1999 (1999-11-16)

2. The application fails to meet the requirements of PCT Article 33(1) because the subject matter of claims 1 to 4, 8 and 10 is not novel (PCT Article 33(2)).

Document D1 discloses the following (the references in parentheses are to D1):

- Method for achieving optimised colour reproduction of a colour image by a colour reproduction device (figure 1; a "digital camera" or "scanner" provides the image, and the colour reproduction device is a "proof printer" or "printing press"; see also column 2, lines 22 to 29),
- in which, using the colour assignment system that characterises the colour transmission properties of the colour reproduction device (figure 1, block 26; column 5, lines 18 to 49) and taking into account the colour space of the image (figure 1, block 10; figure 2 and related text), an image-specific colour assignment is

produced (the functions in blocks 10 and 26 are applied in sequence and constitute the image-specific colour assignment; see column 5, lines 18 to 25),

- wherein the colour values of the colour space of the image and of the colour reproduction device are established and the non-reproducible colour gamut of the image is determined (column 6, line 40 to column 7, line 20);
- wherein a colour adjustment process is used only to adjust the non-reproducible colour gamut of the image to suit the colour space of the reproduction device, after which the image-specific colour assignment is produced (column 11, lines 38 to 50; the use of the English term "only" in D1 is understood to correspond exactly to the use of the German term "nur" in the claim in the present application; that is, it implies a limitation to one hue (often represented in the form of a sector), i.e. adjustment in the blue region only);
- in which the image is output by the colour reproduction device in accordance with the image-specific colour assignment (figure 1).

Claim 1 therefore lacks novelty (PCT Article 33(2)).

2.2 Claims 2 to 4

Claims 2 to 4 describe further details of the process according to claim 1. The only difference between these details and the disclosure of D1 is in the way in which they are formulated. Block 10 in D1 works out the colour space of the image and, where necessary, makes an adjustment to suit the colour space of the output device, as in claims 2 to 4 of the present application. The transformation into the colour space of the output device in block 26 is (necessarily) always carried out, and corresponds to the "standard colour assignment" in claims 3 and 4.

2.3 Claims 8 and 10

D1 suggests a printer as the output device, and explicitly

mentions the possibility of using the process in proofing.

3. Dependent claims 5 to 7 and 9 describe further details of the process according to claim 1, all of which (insofar as they are not explicitly disclosed in D1) are within the normal capabilities of a person skilled in the art and could be applied without making an inventive contribution in order to solve the problems which they address. Claims 5 to 7 and 9 therefore lack an inventive step (PCT Article 33(3)).

In particular it should be mentioned that the smoothing of functions and storage in the form of functions or tables is a completely routine procedure in the context of colour transformations, and the use of electrographic printers as output devices is in no way considered novel or inventive.

4. In addition to the line of reasoning presented in points 2 and 3 above, attention is drawn to the significance of document D2. In the third embodiment in D2 (column 15 to column 16, and figure 20) a colour transformation takes place in which only the colours outside the colour space of the output device are transformed. In the context of the "device profile" of the output device, which acts as a standard colour assignment, document D2 is also prejudicial to the novelty of claim 1.